

SLOT FOR DECADE BAND TAPERED SLOT ANTENNA,  
AND METHOD OF MAKING AND CONFIGURING SAME

ABSTRACT OF THE DISCLOSURE

10022753-1404  
5 An antenna apparatus (10) includes an antenna  
element (12, 412, 512) that has conductive material with  
a recess therein. The recess includes a balun hole (36,  
536), and a tapered slot (37, 537) communicating at its  
narrow end with the balun hole. The balun hole is  
approximately rectangular, has a peripheral edge defined  
by conductive material, and contains air. The tapered  
slot has a shape which is optimized as a function of  
10 factors that include the balun hole design. Each slot  
edge follows a predetermined curve other than a first-  
order exponential curve.